## AMENDMENTS TO THE CLAIMS

1. (Currently amended) A LED system [[(100)]] for illumination and data transmission, said LED system [[(100)]] comprising:

a LED driver [[(110)]] operable to provide a control signal and a plurality of LED currents;

an electronic switch [[(130)]] in electrical communication with said LED driver [[(110)]] to receive the control signal;

an illumination unit [[(150)]] including a plurality of LED light sources [[(120, 140)]],

wherein a first at least one LED light source [[(120)]] is in electrical communication with said LED driver [[(110)]] to facilitate a flow of a first at least one LED current from said LED driver [[(110)]] through said first at least one LED light source [[(120)]] whereby said first at least one LED light source [[(120)]] emits a first light output in response to the flow of the first at least one LED current through said first at least one LED light source [[(120)]],

wherein a second at least one LED light source [[(140)]] is in electrical communication with said electronic switch [[(130)]] to facilitate a flow of a second at least one LED current from said LED driver [[(110)]] through said second at least one LED light source [[(140)]] whereby said second at least one LED light source [[(120)]] emits a second light output in response to the flow of the second at least one LED current through said second at least one LED light source [[(140)]], and

wherein said electronic switch [[(130)]] is operable to one of facilitate or impede the flow of the second at least one LED current from said LED driver [[(110)]] through said second at least one LED light source [[(140)]] as a function of the control signal.

2. (Currently amended) ~~The LED system (100) of claim 1,~~ An LED system for illumination and data transmission, said LED system comprising:

a LED driver operable to provide a control signal and a plurality of LED currents;

an electronic switch in electrical communication with said LED driver to receive the control signal;

an illumination unit including a plurality of LED light sources,

wherein a first at least one LED light source is in electrical communication with said LED driver to facilitate a flow of a first at least one LED current from said LED driver through said first at least one LED light source whereby said first at least one LED light source emits a first light output in response to the flow of the first at least one LED current through said first at least one LED light source,

wherein a second at least one LED light source is in electrical communication with said electronic switch to facilitate a flow of a second at least one LED current from said LED driver through said second at least one LED light source whereby said second at least one LED light source emits a second light output in response to the flow of the second at least one LED current through said second at least one LED light source, and

wherein said electronic switch is operable to one of facilitate or impede the flow of the second at least one LED current from said LED driver through said second at least one LED light source as a function of the control signal,

wherein said illumination unit [[(150)]] switches between a first illumination state and a second illumination state;

wherein the first illumination state is defined by said electronic switch [[(130)]] impeding the flow of the second at least one LED current from said LED driver [[(110)]] through said second at least one LED light source [[(140)]] whereby the first illumination state includes a first emission of the first light output by said first at least one LED light source [[(120)]] and excludes a second emission of the second light output by said second at least one LED light source [[(140)]]; and

wherein the second illumination state is defined by said electronic switch [[(130)]] facilitating the flow of the second at least one LED current from said LED driver [[(110)]] through said second at least one LED light source [[(140)]] whereby the second illumination state includes the first emission of the first light output by said first at least one LED light source [[(120)]] and the second emission of the second light output by said second at least one LED light source [[(140)]].

3. (Currently amended) The LED system [[(100)]] of claim 2,

wherein said LED system [[(100)]] optically communicates a first data bit upon each transition of said illumination states [[(150)]] from the first illumination state to the second illuminate state; and

wherein said LED system [[(100)]] optically communicates a second data bit upon each transition of said illumination states [[(150)]] from the second illumination state to the first illuminate state.

4. (Currently amended) The LED system [[(100)]] of claim 1, wherein each said first at least one LED light source [[(120)]] includes at least one LED ~~(121, 129)~~.

5. (Currently amended) The LED system [[(100)]] of claim 4, wherein each said first at least one LED light source [[(120)]] further includes a capacitor ~~(C.sub.1)~~.

6. (Currently amended) The LED system [[(100)]] of claim 1, wherein each said second at least one LED light source [[(140)]] includes at least one LED ~~(121, 129)~~.

7. (Currently amended) The LED system [[(100)]] of claim 6, wherein each said second at least one LED light source [[(140)]] further includes a capacitor ~~(C.sub.2)~~.

8. (Currently amended) The LED system [[(100)]] of claim 1,

wherein said first at least one LED light source [[(140)]] includes a first LED light source [[(140)]]; and

wherein said first LED light source [[(140)]] includes at least one LED ~~(141, 149)~~ connected in series to said electronic switch [[(130)]].

9. (Currently amended) The LED system [[(100)]] of claim 8, wherein the series connection of said at least one LED ~~(141, 149)~~ and said electronic switch [[(130)]] is connected to said LED driver [[(110)]].

10. (Currently amended) The LED system (100) of claim 8, wherein said first LED light source [[(140)]] further includes a capacitor ~~(C.sub.2)~~ connected in parallel to the series connection of said at least one LED ~~(141, 149)~~ and said electronic switch [[(130)]].

11. (Currently amended) The LED system [[(100)]] of claim 1, wherein said LED driver [[(110)]] includes a controller [[(112)]] operable to generate the control signal in response to a reception of a data signal indicative of data bit to be optically communicated by said LED system [[(100)]].

12. (Currently amended) The LED system [[(100)]] of claim 12, wherein said controller [[(112)]] is connected to an input signal terminal of said electronic switch [[(130)]].

13. (Currently amended) The LED system [[(100)]] of claim 1, further comprising: a controller [[(112)]] operable to generate the control signal as directed by said LED driver [[(110)]],

wherein said LED driver [[(110)]] directs said controller [[(112)]] to generate the control signal in response to a reception of a data signal indicative of data bit to be optically communicated by said LED system [[(100)]].

14. (Currently amended) The LED system [[(100)]] of claim 13, wherein said controller [[(112)]] is connected to an input signal terminal of said electronic switch [[(130)]].

15. (Currently amended) A method of operating a LED system [[(100)]] for illumination and data transmission, said method comprising:

transitioning the LED system [[(100)]] between a first illumination state and a second illumination state, wherein the first illumination state includes a first transmission of a first light output, and the second illumination state includes the first transmission of the first light output and a second transmission of a second light output;

optically communicating a first data bit upon each transition of the LED system [[(100)]] from the first illumination state to the second illumination state; and

optically communicating a second data bit upon each transition of the LED system [[(100)]] from the second illumination state to the first illumination state.

16. (Currently amended) A LED system [[(100)]] for illumination and data transmission, said LED system [[(100)]] comprising:

means for transitioning between a first illumination state and a second illumination state, wherein the first illumination state includes a first transmission of a first light output, and the second illumination state includes the first transmission of the first light output and a second transmission of a second light output;

means for optically communicating a first data bit upon each transition of the LED system [[(100)]] from the first illumination state to the second illumination state; and

means for optically communicating a second data bit upon each transition of the LED system [[(100)]] from the second illumination state to the first illumination state.

## REMARKS

In response to the Office Action mailed June 11, 2008, Applicants respectfully request reconsideration. All of the issues raised in the Office Action have been carefully considered and are addressed herein.

Claims 1-16 are pending for examination, with claims 1, 2, 15 and 16 being independent claims. In this paper, claims 1-16 have been amended largely to address various informalities (e.g., removal of reference numerals), and not to overcome any prior art rejection. No claims have been added or canceled and no new matter has been added. The application as now presented is believed to be in allowable condition.

### I. Allowable Subject Matter

Applicants note with appreciation and thank the Examiner for the indication of allowable subject matter in claims 2 and 3. To accept this subject matter, claim 2 has been rewritten in independent form to include all of the limitations of claim 1. Claim 3 depends from claim 2 and is allowable based at least upon its dependency.

### II. Rejections under 35 U.S.C. §103

Claims 1 and 4-16 (including independent claims 1, 15 and 16) were rejected under 35 U.S.C. §103(a) as purportedly being obvious over US Patent No. 5,777,772 ("Araki") in view of US Patent No. 4,320,388 ("McCarthy"). Applicant respectfully traverses these rejections.

#### A. Discussion of Araki

Araki is related to an optical transmitter for optical communications in which the transmitter employs an array of laser diodes (LDs) to emit multiple optical signals (e.g., for propagating through multiple optical fibers). As illustrated in Fig. 4 of Araki, each LD of the array has a drive circuit 3 and a bias circuit 2 (Col. 3, lines 17-30). The drive circuit for each LD is